

Landscape Conservation Management & Analysis Portal



The Landscape Conservation Management and Analysis Portal, LC MAP, provides a virtual collaborative workspace allowing partners of the Great Northern LCC to securely share and access common datasets and information to further coordinated research, management, and resource conservation.

LC MAP supports large landscape conservation in several ways. LC MAP: 1) is designed to advance project-level research and modeling by providing a secure virtual workspace where multiple partners can discover, assess, edit, analyze, and model common data themes in near realtime; 2) facilitates data mining and discovery from the World Wide Web; 3) functions as a secure repository where GNLCC partners can safely store their data, custom-control access, and manage metadata using customized, intuitive data documentation tools; and 4) takes advantage of the powerful geospatial analysis capabilities of ArcGIS 10 and its broad array of extensions.

Custom-Designed Platform

LC MAP is custom-designed to provide users with a platform that facilitates data management and analysis through four primary functions.

DISCOVERY & ACQUISITION

- Search broadly for source data
- Access common data themes (lineages, versions)
- Efficiently vet data for uses & limitations

ANALYSIS & MODELING

- Shared work environment for real-time, distributed research collaboration
- Supporting communication pieces, an “open door”
- Automated metadata updates

STORAGE & SHARING

- Data stored/delivered from readily accessible & replicated sources
- Common workspaces set up & managed for project-level data
- State-of-the-art documentation & data manipulation tools
- Simple yet effective data security inherent in distributed system

DELIVERY & OUTCOMES

- Integrated QA/QC tools
- Fine-tune control of data sharing & publication
- Flexible output formats, easily ingestible by most data viewers
- User-friendly visualization interface (coming soon!)

LC MAP facilitates real-time information sharing, processing, and delivery while honoring the contributions, mandates, and securities of all GNLCC partners

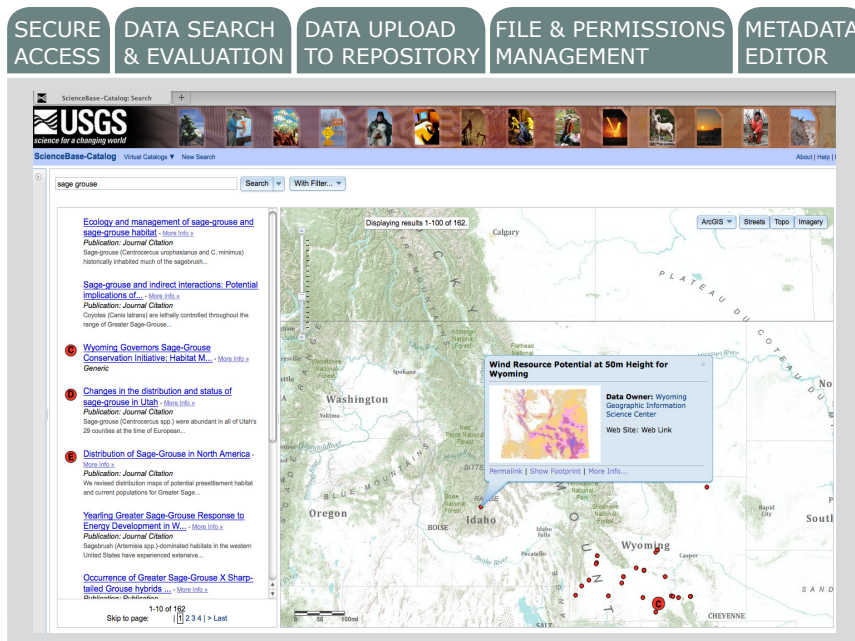


How LC MAP Works

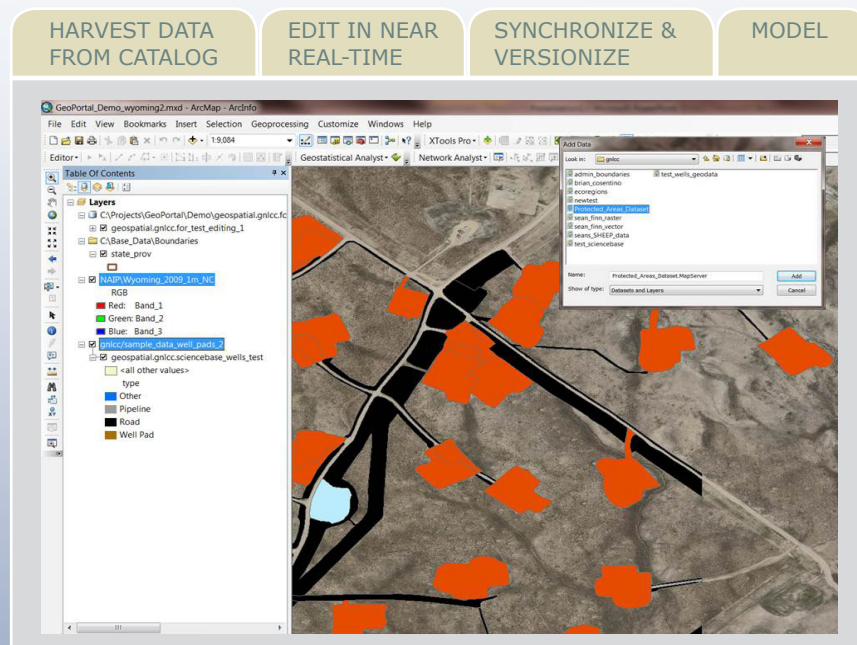
DATA DISCOVERY & MANAGEMENT SCIENCE BASE CATALOG

The **Catalog** feature of LC MAP is built upon ScienceBase, an open source Scientific Data Management system that manages Web Service communications to display and transfer data in a variety of formats. As an open source project, ScienceBase allows the GNLCC to take advantage of features developed for other user groups.

ScienceBase encourages developers to contribute features that can be used by either broader audience or very focused research groups. Finally, open source means that the code is open for inspection or improvement: the code and application are freely available to GNLCC partners.



DATA ANALYSIS & MODELING GIS SHARE



The analysis portion of LC MAP, the **GIS Share**, relies on ESRI's ArcGIS 10 software. This portion of LC MAP is not open source so there are costs associated with its use. However, ArcGIS is used by most partners* in the region and it is a powerful, stable, and well-supported GIS.

Spatial analysts using ArcGIS 10 to manipulate or model can use the GIS Share to access data directly through a "cloud" of networked servers (one of which is the Catalog). The Web Service features function automatically and facilitate tracking and versioning the workflow allowing geographically dispersed collaborators to work in a shared, virtual environment.

* If your organization does not have an ESRI licence to use ArcGIS, contact us and allow us to help locate a solution.

For More Information About LC MAP

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View a recorded webinar about LC MAP:

<http://nrmssc.usgs.gov/gnlcc/webinars/sfinn>

Visit the LC MAP webpage:

<http://nrmssc.usgs.gov/gnlcc/LCMap>